

DIFFERENT LAG EFFECTS OF ASIAN DUST EVENTS ON CARDIORESPIRATORY MORBIDITY AND MORTALITY IN SEOUL, KOREA

Hyunsuk Hong, *Department of Epidemiology and Biostatistics, School of Public Health, Seoul National University, Republic of Korea*

Ho Kim, *Department of Epidemiology and Biostatistics, School of Public Health, Seoul National University, Republic of Korea*

Background and Aims: The effects of Asian dust events on morbidity and mortality has been assessed in the previous studies from East Asia. However, only a few studies have evaluated the effects of Asian dust events on both morbidity and mortality.

Methods: We investigated the associations between Asian dust events and mortality and hospital admissions in Seoul, Korea for the periods 1992–2009 and 2001–2006 after adjusting for daily mean PM10 concentration, temperature, relative humidity, day of the week, trends in time. We employed generalized linear model with natural cubic splines.

Results: During study period, a total of 173 Asian dust events were observed and 596,549 deaths were identified along with 797,021 and 894,907 admissions for cardiovascular and respiratory diseases, respectively. We found that the Asian dust events causes 2.57% (95% CI: -1.28~6.58) increase in cardiovascular admissions at lag 3 day and 3.93% (95% CI: 0.03~7.97) for deaths due to cardiovascular disease at lag 6 day.

Conclusions: This study suggests that Asian dust events have short lag effects on morbidity than mortality. .

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